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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Applicant:	Larry H. Gass, et al.	§	Art Unit:	2137
Serial No.:	09/922,041	§	Examiner:	Minh Dieu T. Nguyen
Filed:	August 3, 2001	§	Atty Docket:	ITL.0506US (P10475)
For:	Firmware Security Key Upgrade Algorithm	§	Assignee:	Intel Corporation

Mail Stop **Appeal Brief-Patents**
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

TRANSMITTAL OF AMENDED APPEAL BRIEF

In response to the Notification of Non-Compliant Appeal Brief, attached hereto is an Amended Appeal Brief.

The Grounds of Rejection and Arguments section have been amended to address the current rejections. Claims 33-39 are no longer included in the arguments. The Amended Appeal Brief is therefore believed to be in compliance.

No fee is believed to be due with this response. However, the Commissioner is authorized to charge any fee due to Deposit Account No. 20-1504 (ITL.0506US).

Respectfully submitted,

Date: April 7, 2008

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Date of Deposit: April 7, 2008
I hereby certify under 37 CFR 1.8(a) that this correspondence is being deposited with the United States Postal Service as **first class mail** with sufficient postage on the date indicated above and is addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Nancy Meshkoff

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Nancy Meshkoff

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REAL PARTY IN INTEREST

The real party in interest is the assignee Intel Corporation.

RELATED APPEALS AND INTERFERENCES

None.

STATUS OF CLAIMS

Claims 1, 3-7, 27, 29, and 32-42 (Rejected).

Claims 2, 8-26, 28, and 30-31 (Canceled).

Claims 1, 3-7, 27, 29, and 32-42 are rejected and claims 1, 3-7, 27, 29, 32, and 40-42 are the subject of this Appeal Brief.

STATUS OF AMENDMENTS

No reply was filed after the Final Rejection of 11/16/2007. All amendments have therefore been entered.

SUMMARY OF CLAIMED SUBJECT MATTER

In the following discussion, the independent claims are read on one of many possible embodiments without limiting the claims:

1. A method comprising:

identifying (Fig. 3, 304) a firmware upgrade request by a firmware program (specification, page 9, lines 11-17);

retrieving a file signed with a private key (Fig. 3, 314; specification, page 9, lines 18-24);

validating the file with a public key (Fig. 3, 316; specification, page 9, lines 25-27);

upgrading a portion of the firmware program by the firmware program (Fig. 3, 322; specification, page 10, lines 6-10);

locking a device storing the firmware program such that a second portion of the firmware program is not readable (Fig. 3, 308; specification, page 8, line 25-page 9, line 2);

validating the public key (Fig. 3, 316; specification, page 9, lines 18-22); and

retrieving a second public key from the firmware program if the public key is not valid (Fig. 3, 318; specification, page 9, lines 23-24).

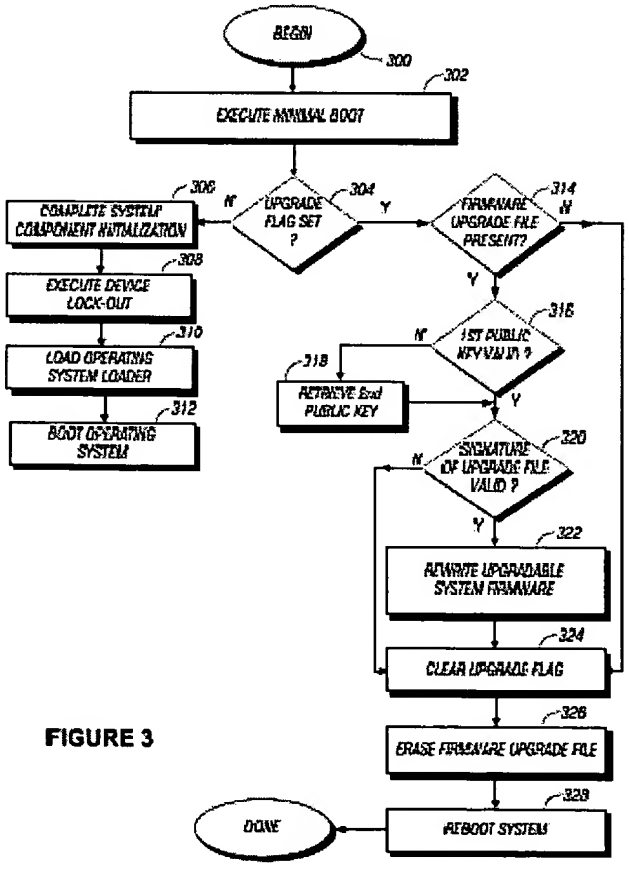

FIGURE 3

4. The method of claim 3, further comprising:

deleting the file (Fig. 3, 326; specification, page 13, lines 11-16); and

clearing the flag (Fig. 3, 324, specification, page 10, lines 11-12).

27. An article comprising a medium storing instructions for enabling a processor-based system to:

identify (Fig. 3, 304) a firmware upgrade request by a firmware program (specification, page 9, lines 11-17);

retrieve a file signed with a private key (Fig. 3, 314; specification, page 9, lines 18-24);

validate the file with a public key (Fig. 3, 316; specification, page 9, lines 25-27);

upgrade a portion of the firmware program by the firmware program (Fig. 3, 322; specification, page 10, lines 6-10);

lock a device storing the firmware program such that the public key is not readable (Fig. 3, 308; specification, page 8, line 25-page 9, line 2);

validate the public key (Fig. 3, 316; specification, page 9, lines 18-22); and

retrieve a second public key from the firmware program if the public key is not valid (Fig. 3, 318; specification, page 9, lines 23-24).

32. A method comprising:

identifying (Fig. 3, 304) a firmware upgrade request by a firmware program (specification, page 9, lines 11-17);

retrieving a file signed with a private key (Fig. 3, 314; specification, page 9, lines 18-24);

validating the file with a public key (Fig. 3, 316; specification, page 9, lines 25-27);

upgrading a portion of the firmware program by the firmware program (Fig. 3, 322; specification, page 10, lines 6-10);

locking a device storing the firmware program such that a second portion of the firmware program is not readable (Fig. 3, 308; specification, page 8, line 25-page 9, line 2);

validating the public key (Fig. 3, 316; specification, page 9, lines 18-22);

retrieving a second public key from the firmware program if the public key is not valid (Fig. 3, 318; specification, page 9, lines 23-24);

reading a flag, wherein the flag is located in a non-volatile medium (Fig. 1, 46) (Fig. 3, 304; specification, page 8, lines 19-21);

determining that the flag is set;

deleting the file (Fig. 3, 326; specification, page 13, lines 11-16); and

clearing the flag (Fig. 3, 324, specification, page 10, lines 11-12).

40. A processor-based system comprising:

a processor (Fig. 1, 48); and

a storage (Fig. 1, 40) storing a basic input/output system (Fig. 1. 200), said basic input/output system including a first portion (Fig. 1, 10) that is not upgradable and a second portion (Fig. 1, 20) that is upgradable, said first portion including an upgrade verification code (Fig. 2, 14) (specification, page 4, lines 23-27).

41. The system of claim 40 including a public key (Fig. 2, 28) in said first portion (Fig. 2, 20).

At this point, no issue has been raised that would suggest that the words in the claims have any meaning other than their ordinary meanings. Nothing in this section should be taken as an indication that any claim term has a meaning other than its ordinary meaning.

GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

A. Whether claims 40-41 are anticipated under 35 U.S.C. § 102(e) by Hind (U.S. 6,976,163).

B. Whether claims 1, 3, 5-7, 27, and 29 are unpatentable under 35 U.S.C. § 103(a) over Angelo (U.S. 5,748,940) in view of Falik (U.S. 2002/0166061) and further in view of Sudia (U.S. 2001/0050990).

C. Whether claims 4 and 32 are unpatentable under 35 U.S.C. § 103(a) over Angelo in view of Falik, in view of Sudia, and further in view of Toft (U.S. 2002/0138592).

D. Whether claim 42 is unpatentable under 35 U.S.C. § 103(a) over Hind in view of Sudia.

ARGUMENT

A. Are claims 40-41 anticipated under 35 U.S.C. § 102(e) by Hind (U.S. 6,976,163)?

Claim 40 calls for the first portion to store an upgrade verification code. This limitation is not addressed in the final rejection. Nor does the limitation appear to be taught by the cited reference. Therefore the rejection should be reversed.

B. Are claims 1, 3, 5-7, 27, and 29 unpatentable under 35 U.S.C. § 103(a) over Angelo (U.S. 5,748,940) in view of Falik (U.S. 2002/0166061) and further in view of Sudia (U.S. 2001/0050990)?

Claim 1 calls for retrieving a second key from a firmware program if the public key is not valid. The Examiner suggests that this is met by some backup key. But the backup key is not obtained if the public key is not valid.

For the same reason, claim 27 and its dependent claims should be in condition for allowance.

C. Are claims 4 and 32 are unpatentable under 35 U.S.C. § 103(a) over Angelo in view of Falik, in view of Sudia, and further in view of Toft (U.S. 2002/0138592)?

For the reasons set forth in section B, these rejections should also be reversed.

D. Is claim 42 is unpatentable under 35 U.S.C. § 103(a) over Hind in view of Sudia?

On the same basis as set forth in section A above, claim 42 should be in condition for allowance.

Applicant respectfully requests that each of the final rejections be reversed and that the claims subject to this Appeal be allowed to issue.

Respectfully submitted,

Date: April 7, 2008

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CLAIMS APPENDIX

The claims on appeal are:

1. A method comprising:

identifying a firmware upgrade request by a firmware program;

retrieving a file signed with a private key;

validating the file with a public key;

upgrading a portion of the firmware program by the firmware program;

locking a device storing the firmware program such that a second portion of the firmware program is not readable;

validating the public key; and

retrieving a second public key from the firmware program if the public key is not valid.

3. The method of claim 1, identifying a firmware upgrade request by a firmware program further comprising:

reading a flag, wherein the flag is located in a non-volatile medium; and

determining that the flag is set.

4. The method of claim 3, further comprising:

deleting the file; and

clearing the flag.

5. The method of claim 1, further comprising:

determining that the file is not authentic; and

locking the device.

6. The method of claim 1, further comprising:

locking the device after upgrading a portion of the firmware program by the firmware program.

7. The method of claim 1, wherein the second portion of the firmware program is a public key.

27. An article comprising a medium storing instructions for enabling a processor-based system to:

identify a firmware upgrade request by a firmware program;

retrieve a file signed with a private key;

validate the file with a public key;

upgrade a portion of the firmware program by the firmware program;

lock a device storing the firmware program such that the public key is not readable;

validate the public key; and

retrieve a second public key from the firmware program if the public key is not valid.

29. The article of claim 27, further storing instructions that enable the processor-based system to:

determine that the file is not authentic; and

lock the device.

32. A method comprising:

identifying a firmware upgrade request by a firmware program;

retrieving a file signed with a private key;

validating the file with a public key;

upgrading a portion of the firmware program by the firmware program;

locking a device storing the firmware program such that a second portion of the firmware program is not readable;

validating the public key;

retrieving a second public key from the firmware program if the public key is not valid;

reading a flag, wherein the flag is located in a non-volatile medium;

determining that the flag is set;

deleting the file; and

clearing the flag.

40. A processor-based system comprising:

a processor; and

a storage storing a basic input/output system, said basic input/output system including a first portion that is not upgradable and a second portion that is upgradable, said first portion including an upgrade verification code.

41. The system of claim 40 including a public key in said first portion.

42. The system of claim 40 including two public keys in said first portion.

EVIDENCE APPENDIX

None.

RELATED PROCEEDINGS APPENDIX

None.